## Top 10 Weather Events in 2010 for Northeast Montana

by Tanja Fransen, National Weather Service, Glasgow

Some years are busier than others when it comes to weather, but 2010 is the first year that I've thought that a top ten list was needed to share with those living in northeast Montana. This list starts with the #1 event in 2010, and goes down to the number 10 event.

<u>July 26th Sheridan County Tornado</u>: This was the deadliest tornado in Montana since 1923, and only the fourth EF-3 on record. The supercell thunderstorm developed strong rotation, and rotating wall clouds and brief funnel clouds were reported in Daniels County. As the storm moved southeast into Sheridan County, it intensified and a large, long-lived tornado formed. The tornado traveled for 18 miles, mostly through rural areas, but it had devastating impacts as it hit a ranch, killing two people and injuring one in a farmstead northwest of Medicine Lake.

June 21st Froid Microburst: The first thunderstorm related fatality in Montana in 2010. Severe thunderstorms across the region had widespread reports of winds in the 60 to 75 mph range, but a microburst 3 miles west of the town of Froid produced winds estimated by the NWS at 110 to 125 mph. A modular home that was strapped to the ground had the straps snapped, and it was lifted from its foundation, thrown 30 feet to the north-northeast and flipped over. Two people were in the home at the time and a female ended up approximately 250-280 feet north-northeast of the main debris area. The female victim died shortly afterwards and the male victim was hospitalized with injuries including a broken arm and collarbone. The home was a total loss. A garage next to the home had damage to the garage doors, the siding on the west side of the home, and some of the roofing shingles torn off.

January 18-25, dense fog, heavy snow and blizzard: We started the week with heavy, dense fog across much of the area that lasted for several days. Airline flights across the regions were cancelled for days, and the thick hoar frost collected on towers and power lines up to an inch thick. By Thursday that week, many areas in Valley, Daniels, Roosevelt and Sheridan County had widespread power outages and electrical crews rushed to try and fix the lines before heavy snow hit on Saturday, with blizzard conditions on Sunday.

<u>December Storms</u>: Four major storms hit in December starting with heavy snow on Dec 10<sup>th</sup> along the Highway 2 corridor. With east winds, highways quickly drifted in. On Dec 14<sup>th</sup> freezing rain hit eastern Roosevelt, Sheridan and Richland Counties, causing problems with airlines, and transportation. Highway 2 had up to a half inch of ice on it! Dec 20<sup>th</sup> hit with more heavy snowfall throughout most of the region, and we ended the month with blizzard conditions on the 29<sup>th</sup> through all of the region. At the NWS Glasgow office, we measured 24.7" of snowfall which was the second snowiest December on record.

<u>August 6th Damaging Winds and Hail</u>: A macroburst (large widespread area of damaging thunderstorm straight line winds) occurred north of the Nashua area, and spread east-south east to near Wolf Point. A doublewide manufactured home had the roof blown off, one empty

storage building blown apart, and there was about 3 miles of downed power lines (approximately 44 poles all together) north and northeast of Nashua. The power poles were snapped cleanly, mostly at ground level. NWS officials estimated the winds to be around 120 mph. The house and storage building had less wind, since nearby poles were not snapped at those locations. This also was the origination point to where a combined swath of hail and wind damaged 70 to 100 percent of the crops east southeast into Roosevelt County ending up just west of Wolf Point. According to the USDA Hazard Risk Assessment indemnity figures, approximately \$750,000 worth of crop damage occurred with this storm.

**Fog, and more fog**: This year brought a lot of fog to the region, and we heard the old "90 days after fog" a lot. But wait, some people say 60 days, some say 6 weeks, and what exactly is supposed to happen after that period, well that varies from one person to the next as well. We've been told bad weather (we all have different categories that we consider bad weather), any bit of precipitation (even a trace!), or a huge deluge of rainfall. All in all in Glasgow last Winter through early Summer, we had 61 days of fog, with 29 of those days having the visibility drop to a quarter mile or less during the day which is how we define dense fog. We had 23 days of precipitation that occurred 90 days after the fog, and 8 days of that occurred with less than a quarter mile of fog 90 days prior.

<u>May 4th High Wind</u>: Very high damaging winds of 40 to 60 mph with gusts to 70 mph were the worst wind storm of 2010. The waves on Fort Peck seemed to resemble the ocean that day. Petroleum County, and the town of Winnett had the most damage, with large grain bins blown off their foundations, and windows broken by flying debris.

<u>April 8th High Winds and Fires</u>: With the snow cover gone, and the ground bare, a strong cold from moved through bringing with it strong winds of 25 to 40 mph with gusts to 50 mph during the evening of April 8<sup>th.</sup> The winds caused some fire problems across the area as wildfires sparked across Valley, Roosevelt and Richland Counties. Quick efforts by local fire departments kept the fires from becoming too large and greatly reducing the loss of property.

<u>Sept 17th early season snow</u>: McCone, Dawson, Wibaux and Prairie Counties had one of the earliest snowfalls on record this year. Up to three inches of snow fell in the Glendive and Lindsey area, and other higher elevation locations in the region also saw some snow that accumulated, but didn't stick around for very long.

July 28th Supercell: This storm didn't cause the amount of damage that some others did this year, but it's one I will always remember for a few reasons. 1. We had 85 mph winds with 1" hail for 12 minutes, my yard was a mess from the fallen tree branches, and my skylight started leaking water! 2. It is only the second time since I've lived here that I've sent my kids to the basement to shelter. 3. Some of the most amazing photos I've ever seen were taken by dozens of people who were watching the storm from north of Hinsdale to Glasgow and east-southeast before it dissipated. One photo of this storm made the NASA picture of the day website, and placed Montana on the map as a place that really does get horrific thunderstorms!

2010 A Year in Pictures: Weathering Northeast Montana